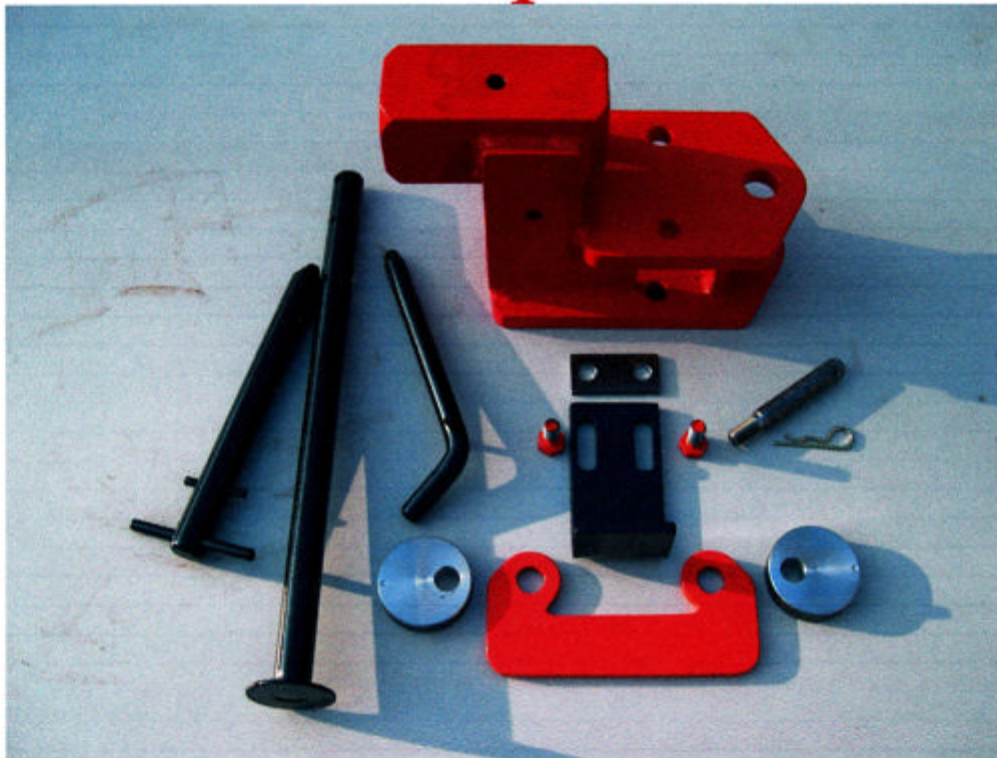


Assembly & Operation Instructions for the 2nd Generation Gravely Quick Hitch Old Style Snow Plow Adapter



Designed and Manufactured Exclusively By
Cogan Valley Machine Co.

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Assembly & Operation Instructions for the 2nd Generation Gravely Quick Hitch Old Style Snow Plow Adapter 2010 Production Year

The boys at Cogan Valley Machine are proud to offer another new product to its line of quality after market parts for the Gravely tractors.

This adapter will allow you to connect an old style Snowplow to a quick hitch, mounted to the Model L or newer walk behind Gravely.

Value added features:

The main parts have received Powder Coat Paint for a durable finish with stock colors of a close match to either; **gravely orange**, **gravely red** or black.

A push plate has been included to provide support and remove any pressures of the plow on the quick hitch horn, thus, allowing the horn to just carry the weight of the attachment. This is done with an adjustable push bar mounted to the Weldment, thus, transferring any rearward forces back against the quick hitch casting instead of a bending force on the horn. The lack of this support has caused some horns to bend under the stress of some attachment such as snow blowers. With this innovative design, the horn only carries the weight of the plow blade straight down. Our 2-stud reinforcement retainer plate is also used for this push plate. Our 4-stud reinforcement retainer plate can be used as the push plate instead of this 2-stud reinforcement retainer plate if any of the upper Q H studs need supported to curtail bending or breaking.

The blade adapter will allow the blade to swing or tilt on the horn to adjust to uneven ground when plowing snow.

OR

The adapter can be locked ridged, in a level position, or in a slight tilt (any amount up to about 4" per end of blade movement above or below center) for grading of dirt or gravel.

Either mode is achieved with cam-like stop buttons mounted on the two lower quick hitch studs. As the Weldment swings side to side on the horn, the sides of the attached push bar comes to rest against the cam buttons, acting as stops. Depending on the application, both cam stop buttons can be turned either equally into the push bar to lock the Weldment center or equally out by varying amounts up to the maximum and locked with a nut on the lower studs, allowing the Weldment to swing the desired amount. To lock the Weldment in some degree of tilt, turn both cam stop buttons either to the right or to the left to achieve the desired tilt angle. The cam stop buttons have a white paint dot to indicate the high point of the cam for ease of adjustment.

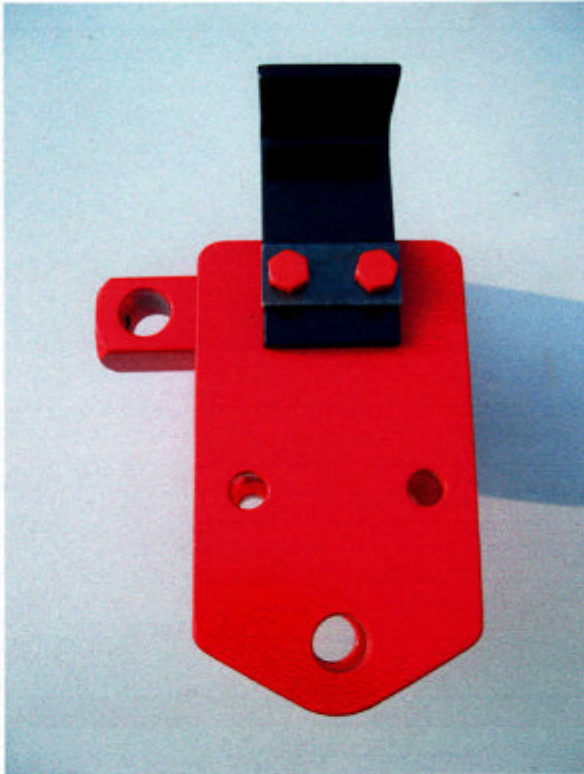
A drop leg has been incorporated into the design that will enable the plow to remain upright after you have disconnected from the power unit, thus allowing ease to reconnect the next time, sparing your back with the effort of manhandling the blade into position. This feature also comes in handy when storing the blade.

After you use this feature, you will realize the new style "Gravelly" model doesn't have a leg to stand on.

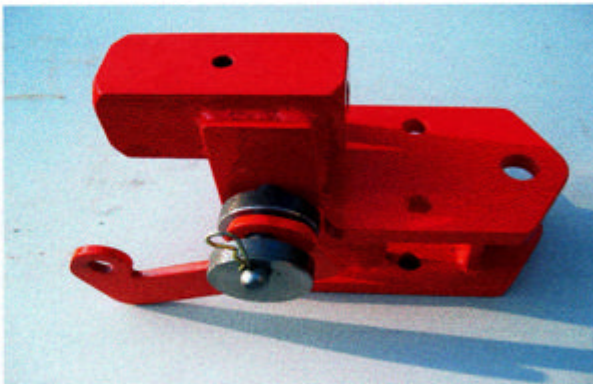
A custom threaded shoulder pin is supplied that can be attached on the side of the unit, through a provided drilled hole to hang the unused hardware items when the unit is stored to avoid loss.

Assembly Instructions of this Product

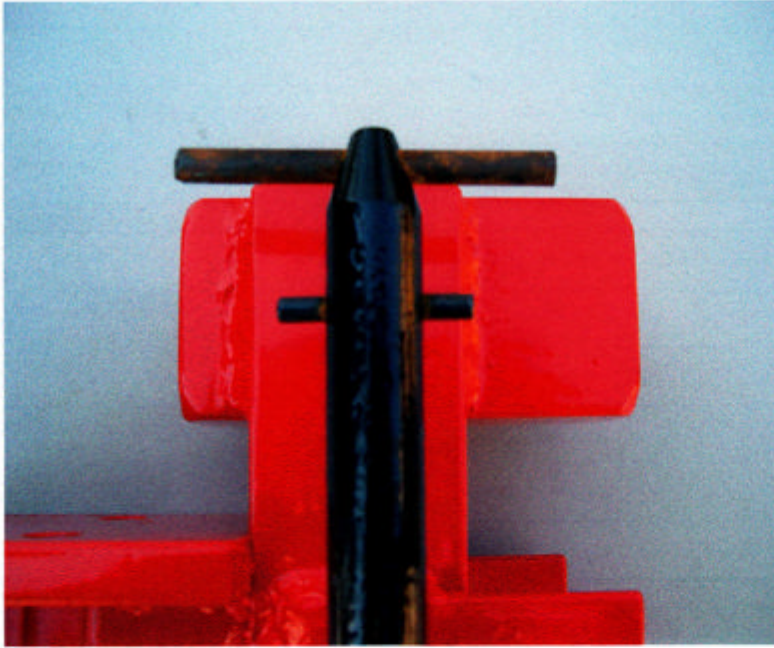
Main unit assembly:



Bolt the slotted “L” shaped push bar using the provided 3/8” X 3/4” grade 5 hex bolts and the small 1/8” thick 2-hole tie plate to the lower side of the Weldment into the 2 tapped hole with the “L” facing down, away from the horn receiver block of the Weldment. Apply a little oil or light grease before inserting bolts into threads. Leave these bolts snug till final adjustment to your machine. The 2-hole tie plate provides a better locking grip for the push plate than simple washers.



At your option, install the 1/2” threaded shoulder pin through the provided 3/8” hole located on the opposite side from the drop leg lug for storage of the accessory hardware (secured with the smaller hair pin through a hole at the end of the shoulder pin) when your adaptor is not in use.

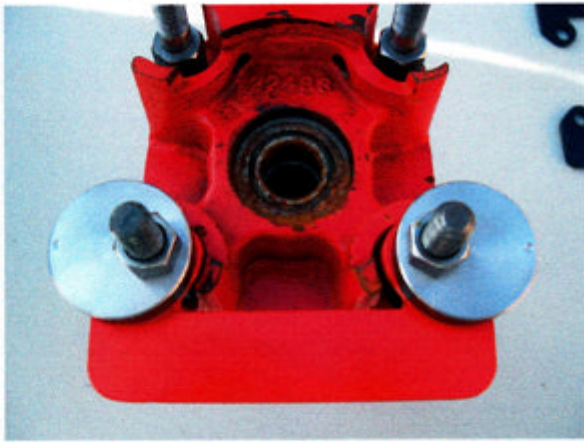


The drop leg of your adapter needs to be assembled in place. 2 roll pins are provided to install through the upper 2 holes of your drop leg. The long pin (1/4" X 3") acts as a handle, the shorter (3/16" X 1-1/2"), when installed, provides

some clearance for your fingers and ease of operation. The lower pin should be installed with its slit rotated to a position as not to rest on the drop leg lug when lowered to it. This will help preserve the finish. After assembly, the drop leg is irremovable from the lug without disassembly. Apply a little oil or light grease to the threads of the "L" shaped 3/8" lock bolt handle and thread into the end of the lug to lock the drop leg into the desired position. A large hairpin is provided to insert into the lower hole (about 4" below the small roll pin) of the drop leg, acting as a safety, to support the weight of your attachment in storage mode or, to hold the drop leg up off the ground when in use, should the lock bolt handle loosen.

A grease fitting is provided to thread into the top of the horn receiver block. Inject a moderate amount of grease to coat the horn and taper horn socket as needed. If you are starting with all new parts, you could lightly coat the horn first before assembly to get the lubrication started.

Push plate and tilt limit assembly:



The provide “U” shaped 2 hole push plate (also called 2-stud reinforcement retainer plate) is attached to the lower two double ended Q H studs (not supplied with this kit) of your quick hitch. The optional “horseshoe” shaped 4-stud reinforcement retainer plate

can be used for this purpose as well. NOTE: It is important that all the studs used for these plates have the same length hex portion so the plate will sit even. It has been discovered that studs of different production batches were slightly different in this regard. If needed, replace the studs.

Then place each of the 2 cam stop buttons (with the white dot facing toward you and the cams rotated to their outermost position) on the studs and secure with nuts only snugly till final assembly.

Gravelly blade attachment:



To attach your old dozer blade, first remove the 4-bolt advance casting mounting adapter blade support from the blade swivel casting. You will not need that adapter for this assembly. Slide the new quick hitch adapter into the blade swivel casting and drop in the new supplied

3/4” dozer hinge drop pin. Drop in the new supplied 1/2” bent handle implement pin and all that is left to do is some fine adjustments and your new blade assembly is ready to go.

Final adjustments:

Due to different **Gravelly** quick hitch models, designs and machined dimensions of castings and studs, this adapter will need to be fitted to your particular Quick Hitch. The slotted “L” shaped push bar is designed for this purpose.

Place your new adapter fully on the horn of your quick hitch and secure with a hairpin or similar device. Use washers on the small end of the horn to take up as much endplay, if any, as you can without making the adapter tight on the horn. The adapter needs to swing freely.

Adjust the “L” shaped push bar (using the slotted holes) to within about 1/64” (.010” to .015”) of touching the push plate (2-stud reinforcement retainer plate). You can use thin card stock such as matchbook cover or several layers of regular paper as a gauge. Secure tightly using the two grade 5 bolts and the 2 hole tie plate.

The goal here is to have the push bar in place when needed to resist the rearward forces developed while using the blade, but allowing the adapter to swing freely on the horn without interference with the push plate when free float tilt is desired. Once this adjustment is made, it can remain unless the entire setup changes, such as going to a different quick hitch and / or machine, or it otherwise falls out of adjustment. If so, repeat this step. The strength of this design, in part, is subject to the proper adjustment of the push bar to the push plate.

Tilt limit adjustment:

Use the two cam-like stop buttons to control the position or amount of tilt (swing) of your dozer blade you desire, as described above in the feature section, and lock with nuts on your lower Q H studs.

Storage or sitting your dozer blade aside:



With the use of the drop leg, disconnecting from your walk behind tractor is simple and easy. When in use, the drop leg is stored by raising it up through the drop leg lug and locked with the “L” shaped clamp bolt handle. The supplied hairpin can be slipped

through the third hole in the drop leg to insure it not fall inadvertently to snag on the ground. To store or just set your dozer blade aside with this adapter; use your machine to take the blade to

the desired location. Drop the leg to the ground and lock with the lock bolt handle. For safety, the hairpin should be slipped into the third hole to prevent your attachment from falling if the drop leg were to inadvertently loosen. Detach the horn hairpin and pull your machine away. Your dozer attachment will be standing there, all lined up, ready for you to pull up to it the next time.



Other Attachments:

With this quick hitch system, the innovative design of the [Cogan Valley Machine Co.](#) built adapter, and if necessary, the addition of optional accessories; other attachments such as a snow blower can be used in combination with the snow plow / dozer blade and quickly interchanged with each other, and in many cases, without removing the push plate or cam buttons from the lower Q H studs.

Optional equipment and accessories:

If you are using a snow blower or similar attachment with the tilt limit bushing installed on one of the upper studs in combination with a dozer blade / snowplow, it is recommended you purchase our horseshoe shaped 4-stud reinforcement retainer plate. The 4-stud plate can be used instead of the standard issue 2-stud plate to act as the push plate. This serves to reinforce the 4 studs when using the tilt limit bushing for the snow blower.



We offer an optional modified hex stud (with a shorter hex portion) to allow the 4-stud reinforcing retainer plate surface to fall behind the quick hitch casting surface and therefore getting the 4-stud reinforcing retainer plate back behind the travel of the teardrop shaped tilt limit plate of the snow blower or similar attachment.

Also Available:



At the time of this printing, [Cogan Valley Machine Co.](#) has produced a “Quick Hitch Non-Powered Attachment Adapter” for use of attachments such as the tool bar, wheel barrow, or dump scoop with the [Gravelly](#) quick hitch system. This adapter was developed to attach a custom built two wheeled cart to the quick hitch, but could be used with nearly any [Gravelly](#) built 4-bolt mounted attachment with a flat mounting surface.

Your purchased product includes all the parts shown on the table in the cover picture plus other related hardware items as a complete kit.

Not included with this product would be the model L tractor, the quick hitch, or the old blade used in the pictures to illustrate the use of this adapter.

Some pictures for illustration of this product are of our prototype model.

Some features subject to change without notice for a better design.

This adapter fits nicely, and in most cases, has shipped in a medium flat rate box with professionally fitted packing to insure your new parts have arrived in new condition. Check your parts with the list below to insure you have received a complete kit before you begin assembly.

This assembly has been designed and manufactured with high regard to strength and durability probably to the point of overkill. It'll never be said that [Cogan Valley Machine Co.](#) builds a product shabbily or with shortcuts as many do in today's market. We have learned long ago; it usually only takes a "little" more effort or material to go first class. We are proud to stand our products next to any of [Gravelly's](#) finest.

Thank you for your purchase of this superb exclusive

[Cogan Valley Machine Co.](#) Product.

May it serve you well.

Jerry & Larry Schmohl

PARTS LIST

101	Main Weldment
102	Slotted "L" Angle Push Bar
104	Two Hole Tie Bar
105	3/8 X 3/4 Hex Bolt (2)
106	3/4 X 12-3/4 Drop Leg
107	1/4 X 3 Roll Pin
108	3/16 X 1-1/2 Roll Pin
109	Large Hairpin
110	3/8 Lock Bolt Handle
111	1/8 Grease Fitting
112	1/2 X 3/8 Shoulder Pin
113	3/8 Lock Washer
114	3/8 Hex Nut
115	Small Hairpin
116	2 Stud Reinforcement Retainer Plate (Push Plate)
117	Cam Stop Button (2)
119	3/4 Dozer Hinge Drop Pin (assembly)
120	1/2 Bent Handle Implement Pin (assembly)

At the time of printing, all parts were available for replacement excluding item 101. If you managed to destroy item 101 to the point of replacement, you probably need a complete assembly.

For customer service

Call 570/998-9484

Or

E-mail at ironworker@chilitech.net.

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